

ABSTRACT OF THE DISCLOSURE

In a semiconductor device comprising a MOS transistor driven at a relatively low voltage and a MOS transistor driven at a relatively high voltage formed on the same semiconductor substrate, the MOS transistor driven at the relatively high voltage comprises: a first active region of a first conductivity type in the semiconductor substrate; a first gate oxide film formed on the first active region and having increased thickness at the edge regions thereof than in the central region thereof in the direction of current flow; and a first electrode formed on the first gate oxide film and doped at a relatively low concentration with an impurity of a second conductivity type which is opposite to the first conductivity type; and the MOS transistor driven at the relatively low voltage comprises: a second active region of a first conductivity type in the semiconductor substrate; a second gate oxide film formed on the second active region; and a second electrode formed on the second gate oxide film and doped at a relatively high concentration with an impurity of a second conductivity type.

A multi-voltage level semiconductor device is provided whereby increases in the number of manufacturing steps can be restricted and decline in the performance of MOS transistors for use in low-voltage circuits can be suppressed.